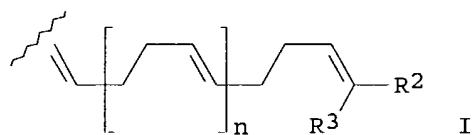
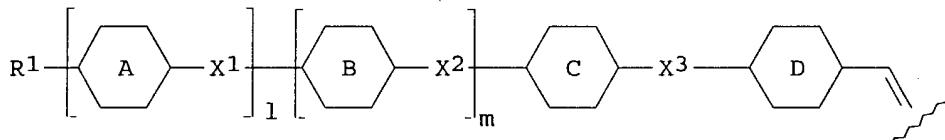


(liq. cryst. 3,4,5-tricyanophenyl derivs. with high dielec. anisotropy as dopants in liq. crystal media)

L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1999:250260 CAPLUS  
 DN 130:330642  
 ED Entered STN: 23 Apr 1999  
 TI Trans-polyene-containing liquid crystalline compounds, their compositions, and liquid crystal display devices using them  
 IN Kato, Takashi; Onishi, Noriyuki  
 PA Chisso Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 35 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C07C013-19  
 ICS C07C022-00; C07C022-04; C07C023-18; C07C025-24; C07D213-30; C07D213-79; C07D239-26; C07D239-34; C07D241-12; C07D241-18; C07D253-06; C09K019-08; C09K019-42  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 23, 75  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11106357	A2	19990420	JP 1997-284456	19971001
PRAI	JP 1997-284456		19971001		
OS	MARPAT 130:330642				
GI					



AB Liq. cryst. compds. have trans-polyenes in the side chains. Also claimed are trans-polyene-containing liq. cryst. compds. I [R1 = H, cyano, halo, C1-20 linear or branched (halo)alkyl in which non-neighboring CH<sub>2</sub> groups may be substituted with O or CH:CH groups; R2 = H, halo, C1-9 alkyl; R3 = H, halo; the rings A, B, C, and D indicate 1,4-phenylene, trans-1,4-cyclohexylene, bicyclo[1.1.0]butane, bicyclo[2.2.2]octane, cyclobutane, or spiro [3.3]heptane rings in which H atoms may be substituted with halogens and C atoms may be substituted with N or O atoms; 1, m = 0, 1; n = 1-5]. Liq. cryst. compns. containing the trans-polyene compds. and Ph compds., and liq. crystal display devices using the compns. are also claimed. The liq. cryst. polyene compds. show high elastic constant ratios, low viscosity, and good compatibility with other liq. cryst. compds.

ST liq crystal display trans polyene prepns

IT **Liquid crystals**  
 (nematic; preparation of trans-polyene compds. for liq. crystal display device)

IT **Liquid crystal displays**  
 (preparation of trans-polyene compds. for liq. crystal display device)

IT 223788-43-0  
 RL: DEV (Device component use); USES (Uses)  
 (preparation of trans-polyene compds. for liq. crystal display device)

IT 223790-18-9  
 RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (preparation of trans-polyene compds. for liq. crystal display device)

IT 223788-44-1 223788-45-2 223788-47-4 223788-50-9 223788-53-2  
 223788-56-5 223788-59-8 223788-61-2 223788-63-4 223788-65-6  
 223788-67-8 223788-69-0 223788-71-4 223788-73-6 223788-75-8  
 223788-77-0 223788-79-2 223788-81-6 223788-83-8 223788-85-0  
 223788-87-2 223788-89-4 223788-90-7 223788-91-8 223788-92-9  
 223788-93-0 223788-94-1 223788-95-2 223788-96-3 223788-97-4  
 223788-98-5 223788-99-6 223789-00-2 223789-01-3 223789-02-4  
 223789-03-5 223789-04-6 223789-05-7 223789-08-0 223789-11-5  
 223789-14-8 223789-17-1 223789-18-2 223789-19-3 223789-20-6  
 223789-21-7 223789-22-8 223789-23-9 223789-24-0 223789-25-1  
 223789-26-2 223789-27-3 223789-28-4 223789-29-5 223789-30-8  
 223789-31-9 223789-32-0 223789-33-1 223789-34-2 223789-35-3  
 223789-36-4 223789-37-5 223789-38-6 223789-39-7 223789-40-0  
 223789-41-1 223789-42-2 223789-43-3 223789-44-4 223789-45-5  
 223789-46-6 223789-47-7 223789-48-8 223789-49-9 223789-50-2  
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 223789-76-2 223789-77-3 223789-78-4 223789-79-5 223789-80-8  
 223789-81-9 223789-82-0 223789-83-1 223789-84-2 223789-85-3  
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 223789-96-6 223789-97-7 223789-98-8 223789-99-9 223790-00-9  
 223790-01-0 223790-02-1 223790-03-2 223790-04-3 223790-05-4  
 223790-06-5 223790-07-6 223790-08-7 223790-09-8 223790-10-1  
 223790-11-2 223790-12-3 223790-13-4 223790-14-5 223790-15-6  
 223790-16-7 223790-17-8  
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
 (preparation of trans-polyene compds. for liq. crystal display device)

IT 75-05-8, Acetonitrile, reactions 867-13-0, Ethyl diethylphosphonoacetate  
 2622-05-1, Allylmagnesium chloride 223790-19-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of trans-polyene compds. for liq. crystal display device)

IT 223790-20-3P 223790-21-4P 223790-22-5P 223790-23-6P 223790-24-7P  
 223790-25-8P 223790-26-9P 223790-27-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of trans-polyene compds. for liq. crystal display device)

L6 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1997:402435 CAPLUS  
 DN 127:42229  
 ED Entered STN: 28 Jun 1997

TI Liquid-crystalline fluoroalkenyl compounds, their compositions, and liquid-crystal displays  
IN Onishi, Noriyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Sekiguchi, Yasuko; Nakagawa, Etsuo  
PA Chisso Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 52 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07C013-28

ICS C07C015-50; C07C022-00; C07C022-08; C07C025-24; C07C043-192; C07C043-225; C07C069-753; C07C069-76; C07C069-773; C07C255-50; C07C255-55; C07D213-26; C07D213-61; C07D213-89; C07D239-26; C07D239-28; C07D319-06; C07F007-08; C09K019-12

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 75

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09104644	A2	19970422	JP 1995-287917	19951009
	WO 9713821	A1	19970417	WO 1996-JP2878	19961002
	W: KR, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 854899	A1	19980729	EP 1996-932809	19961002
	EP 854899	B1	20010110		
	R: DE, FR, GB				
PRAI	JP 1995-287917	A	19951009		
	WO 1996-JP2878	W	19961002		
OS	MARPAT 127:42229				
AB	R1(AX1)m(BX2)nCX3DR2 [I; R1-2 = cyano, halo, C1-20 alkyl, C1-20 haloalkyl, (CH2)pCX4:CX5(CH2)qCX6:CX7X8, in which arbitrary CH2 may be replaced with O, CH:CH, C.tplbond.C and arbitrary H may be substituted with F; X1-3 = CH2CH2, CO2, OCO, CH:CH, C.tplbond.C, (CH2)4, CF2O, OCF2, CH2O, OCH2, direct bond; A, B, C, D = 1,4-C6H4, 1,4-cyclohexylene, bicyclo[1.1.0]butane, bicyclo[1.1.1]pentane, bicyclo[2.2.2]octane, cyclobutane, spiro[3.3]heptane whose C may be replaced with N, O, Si; X4-8 = H, halo, C1-5 alkyl and at least one = halo; m, n = 0, 1; , q = 0-5] are claimed. Liq.-crystal compns. containing $\geq 1$ I and liq.-crystal display devices using the compns. are also claimed. Secondary compnents for liq.-crystal compns. containing $\geq 1$ I as the primary compnents are also mentioned. I show high elastic constant ratio K33/K11 and low viscosity, and provide compns. showing high-speed response.				

ST fluoroalkenyl compd liq crystal display

IT Liquid crystal displays

(liq.-crystal compns. containing fluoroalkenyl compds.

with high elastic constant ratio and low viscosity for displays)

IT 190431-36-8P 190431-39-1P

RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)

(preparation of fluoroalkenyl compds. with high elastic constant ratio and

low viscosity for liq.-crystal displays)

IT 189387-84-6P 190431-33-5P 190431-34-6P 190431-35-7P 190431-38-0P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of fluoroalkenyl compds. with high elastic constant ratio and

low viscosity for liq.-crystal displays)

IT 359-37-5, Iodotrifluoroethene 23391-99-3, [1,1'-Bicyclohexyl]-4,4'-dione

33884-43-4, 2-(2-Bromoethyl)-1,3-dioxane 190431-32-4 190431-37-9

RL: RCT (Reactant); RACT (Reactant or reagent)